that he has oversimplified the intravascular pressure relationships in various portions of the carotid and cerebral arteries. In his discussion of intracranial aneurysms, he has avoided the crucial issues of when cerebral arteriography should be performed in cases of subarachnoid hemorrhage, and when intracranial surgery should be carried out in those cases in which it is indicated. The early and late prognosis of spontaneous subarachnoid hemorrhage has been treated superficially. The surgical treatment of intracranial aneurysms both by cervical carotid ligation and by the intracranial approach has not been tabulated in a comprehensive manner. His own enthusiasm for ligation of the common carotid artery in continuity for aneurysms of the internal carotid as well as some anterior and middle cerebral artery aneurysms may be justified, but cannot be supported on the data presented concerning his own cases or those of others.

This volume should prove of value to the student, general practitioner, internist, and pediatrician, as well as to neurologists and neurosurgeons. It is well illustrated with drawings, photographs, photomicrographs, and x-ray reproductions. Each chapter contains an ample bibliography for those who wish to pursue some topic more thoroughly. Its greatest use will probably be in providing the student or busy practitioner with a well-organized and readily understood treatise of the various aspects of cerebrovascular disease. Neurosurgeons, in general, will not find it rewarding in enabling them to better plan or execute the surgical treatment of vascular lesions.

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GROWTH AND DEVELOPMENT OF CHILDREN—Second Edition. Ernest H. Watson, M.D., Professor, and George H. Lowrey, M.D., Assistant Professor, Department of Pediatrics and Communicable Diseases, University of Michigan Medical School. The Year Book Publishers, Inc., 200 East Illinois, Chicago, 1954. 296 pages, \$7.00.

The need for a text on growth and development has brought about a second edition of this book which first appeared in 1952. A new chapter on facial growth and dentition has been added. The outdated 1923 Baldwin-Wood tables on weight and height standards for normal children have been replaced by the tables of Stuart and Meridith. There is still room for further improvement in the material presented. It would materially add to the readability and interest of the book if some pertinent clinical interpretation were made of the data presented. Meanwhile, it remains the best handy source of data on growth and development for the average physician.

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HUMAN BIOCHEMISTRY—4th Edition. Israel S. Kleiner, Ph.D., Professor of Biochemistry and Director of the Department of Biochemistry, New York Medical College. The C. V. Mosby Company, St. Louis, 1954. 746 pages, 93 illustrations and five color plates, \$7.50.

The fourth edition of this valuable book takes it beyond the category of textbooks of biochemistry into the field of the applied chemistry of physiologic processes so necessary to an understanding of the mechanisms which are the very foundation of the maintenance of health or the understanding of disease. Each chapter is an essay unto itself, and many of them bear rereading not only by students of medicine but also by research workers and practitioners of the healing arts. The author has oriented his work toward the field of applied nutrition, which makes the contribution doubly valuable for physicians as well as students. The chapters on carbohydrate, protein, milk and blood are basic to an understanding of the subjects of food, digestion and vitamins. Wherever possible the author has appended a discussion of the practical applications of the subject matter

of the various chapters, as well as a thoughtful and pertinent bibliography of the important contributions to the subject.

The chapter on hormones is a masterpiece of condensation and simplification without sacrificing any of the pertinent contributions to the field. The last chapter is devoted to recent clinical applications of applied biochemistry and its subject matter is essential to general practitioners and internists alike.

The appendices are appropriately devoted to the composition of foods, their nutritional values and mineral contents. The book is very well written and well indexed. It is highly recommended for students, research workers and practitioners of medicine.

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GALEN OF PERGAMON. George Sarton. University of Kansas Press, Lawrence, Kan., 1954. 112 pages, \$2.50.

This little book on Galen, as one might expect of anything from George Sarton's pen, is comprehensive, authoritative and well documented. The man, his work and the times are all thoroughly dealt with. Sarton's interesting and polished style with the authority of an accomplished scholar makes this little book delightful reading.

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REVIEW OF MEDICAL MICROBIOLOGY. Ernest Jawetz, Ph.D., M.D., Professor of Bacteriology and Lecturer in Medicine and Pediatrics, University of California School of Medicine; Joseph L. Melnick, Ph.D., Professor of Epidemiology, Yale University School of Medicine; and Edward A. Adelberg, Ph.D., Assistant Professor of Bacteriology, University of California. Lange Medical Publications, P. O. Box 1215, Los Altos, 1954. 360 pages, \$4.50.

Textbooks of bacteriology (microbiology) have flowed across this reviewer's desk in a steady stream for the past several years. Few have offered anything over those previously available except for the inclusion of some new facts. Many have been far too elaborate and detailed to be of great value to the medical student who must assimilate microbiology and immunology in two to four months as part of his training in the basic medical sciences.

The present book is designed specifically for the "medical student, house officer, and practicing physician." The reviewer was chilled by these words in the introduction since such statements in textbooks have, in the past, often been prefaces to mere outlines of no use to anyone. That this is not the case here is doubtless due to the background of the authors, particularly that of Dr. Jawetz. He has broad clinical training, as well as vast experience in microbiology, and really knows what is suitable and important for inclusion in a text for this audience.

The reviewer has a stock set of questions which he asks of books such as this and he usually has been disappointed in the answers. In this instance the situation was different. Accurate information and interpretation at a level appropriate for the medical student and physician was obtained in every instance. A future edition might well expand the description of methods used for the *in vitro* estimation of the sensitivity of bacteria to antibiotics to include more technical details. These are widely used and simple descriptions of the techniques used in the laboratory are difficult to find.

The first seven chapters present general statements of principles applicable to microorganisms as a whole, including discussions of metabolism and variation. The former are extraordinarily lucid and should be considered by the student in conjunction with his course in biochemistry.

Two chapters consider antibacterial agents and three describe host-parasite relationships and immune reactions. Systematic microbiology with descriptions of the various